IN THE CLAIMS

Please amend the claims as follows:

1. (original) A detection method for the downlink training sequence in a TDD/CDMA system, which is used in mobile terminals, comprising the following steps:

a) performing matched filter operation on the training sequence of mobile terminals and getting a number of peak positions;

b) detecting the training sequence intensity of other mobile terminals according to the positions of the formerly obtained multiple peaks;

c) judging whether the training sequences of other mobile terminals are active according to the detected training sequence intensity.

2. (original) A method of claim 1, wherein in step a), a threshold value for detecting training sequence intensity can be achieved by matched filter operations.

3. (original) A method of claim 2, wherein said threshold value is specified times of the estimated noise power.

4.   (original)  A method of claim 3, wherein noise power is obtained in this way: calculating the power of the matched filter output peaks in step a) excluding said multiple peak values and then calculating their average.

5.   (original)  A method of claim 1, wherein in step a), every peak among a number of said peaks has an amplitude N times bigger than the biggest peak value respectively, N is a parameter ranges from 0 to 1.

6.   (original)  A method of claim 5, wherein N can be optimized according to a given system, usually about 0.5.

7.   (original)  A method of claim 6, wherein noise power can also be used to verify said peaks in order to remove the pseudo peaks.

8.   (original)  A method of claim 7, wherein the method used to verify the selected peaks to remove pseudo-peaks with noise power is implemented as follows: if said amplitude of the peak value is bigger than the specified times of noise power, it is true; otherwise it is false.

9.   (original)  A method of claim 2, wherein the judging method in

step c) is as follows: comparing the biggest value achieved in step b) with the threshold value of the training sequence intensity obtained in step a), judging whether said training sequences of other mobile terminals are activated; if the biggest peak value is bigger than the threshold of said training sequence intensity, it is activated.

10. (original) A receiver for use in mobile terminals, comprising:

- channel estimating means for match-filtering training sequences from a specified mobile terminal and obtaining a number of peak positions; and

- other mobile terminals detecting means for detecting intensities of training sequences from other mobile terminals in the peak positions, and judging whether the training sequences of the other mobile terminals are activated according to the intensities.

11. (original) The receiver of claim 10, further comprises channel code detecting means and multi-user detecting means, wherein:

- the channel code detecting means detects activated channel code according to the activated training sequences and

corresponding relation between the training sequences and channel codes, and gives the activated channel code to the multi-user detecting means; and

- the multi-user detecting means recovers communication pulse according to the activated channel code and estimated channel response pulse.

12. (currently amended) The receiver of claim 10 ~~or 11~~, wherein said channel estimation means also can obtain a threshold value for detecting training sequence intensity by matched filter operations.

13. (original) The receiver of claim 12, wherein said threshold value is specified times of noise power estimation.

14. (original) The receiver of claim 13, wherein said noise power is obtained by calculating the noise power average of peaks produced by the matched filter operation excluding said several peaks.

15. (currently amended) The receiver of claim 10 ~~or 11~~, wherein, every peak among a number of said peaks has an amplitude N times bigger than the biggest peak value respectively, N is a parameter ranges from 0 to 1.

16. (original) The receiver of claim 15, wherein N can be optimized according to a given system, usually about 0.5.

17. (original) The receiver of claim 16, wherein noise power can also be used to verify said peaks in order to remove the pseudo peaks.

18. (original) The receiver of claim 17, wherein the scheme used to verify the selected peaks to remove pseudo-peaks with noise power is implemented as follows: if said amplitude of the peak value is bigger than the specified times of noise power, it is true; otherwise it is false.

19. (original) The receiver of claim 18, wherein the judging method is as follows: comparing the biggest value achieved with the threshold value of the training sequence intensity obtained in order to judge whether other training sequences are activated; if the biggest peak value is bigger than the threshold of training sequence intensity, it is activated.

20. (currently amended) A mobile terminal including a receiver as claimed in ~~one of the claims 10-19~~claim 10.